

## Letter from Alexander Graham Bell to Alexander Melville Bell and Eliza Symonds Bell, April 20, 1879

Letter written by Alexander Graham Bell to his Parents. Cambridge, Mass., April 20th, 1879. Dear Papa and Mama:

Those horrid law-suits are drawing to a close and there can be no doubt in regard to the termination. If there is justice anywhere the case can not go against us. I shall know tomorrow whether we can publish Gray's Disclaimer of Invention or not. This will be a great step towards public confidence.

The National Bell Telephone Company will certainly want to examine you — and will probably communicate with you upon the subject very shortly. Could you arrange to come down to Boston if sent for in the course of a fortnight or three weeks? Could you bring Mama too?

If we can get through with our evidence within the next fortnight or so and obtain an injunction we could all return to Canada together for the month of May — in spite of the Bell Telephone Company and the lawyers.

The Solicitors of the Company want me to be in Boston now till the close of the suit — and won't allow me to remain quietly away from them. The Western Union have brought a Counter-suit against us which it is important to defeat if possible. The suit is not based upon a speaking Telephone — but upon a Receiving apparatus — containing a metallic diaphragm — capable of responding to tones of all pitch. I am engaged in a laborious search through the past literature of Science for references to defeat their claims. 2 Their claims are based upon an experiment made by Gray in 1874 in which he placed a tin wash-hand-basin opposite the poles of an electro-magnet while transmitting musical tones — and the wash-hand-basin is now termed by the Western Union “a concave metallic

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diaphragm.” Another experiment at the same time consisted in taking up a tin blacking box and placing it upon the poles of his musical electro-magnet. Nothing has ever been done with these forms of apparatus and it is only the success of the Telephone that has caused Gray to remember these experiments — and to bring forward the preposterous claim that — because in his experiments with Induction Coils — he happened to place upon the poles of his electro-magnet — a tin blacking box to see how it would sound, — I am not entitled to the Speaking Telephone!

The blacking box is now termed “a metallic sounding box or resonator consisting of two thin metallic discs or diaphragms united by a circumferential band”, etc.

One of the discs is in contact with the pole of the magnet and the other is at some little distance in front of it.

The broad claim is made for the combination of a disc or diaphragm with an electro-magnet — and this is held to cover the form of apparatus of the Speaking Telephone. Their case is entirely demolished unless they can make something out of this argument.

I have assistants who are constantly employed in looking over the Indexes of the various Scientific Periodicals for the purpose of getting hold of the names of papers that seem to bear upon the subject — and then I look over the articles to see if there is anything of value in them for the suit. I find this a most interesting study and it is opening my eyes to the vastness of our Scientific Literature. I keep all references for my own private use and information. They will be of use in a Book upon the History of the Telephone which I have in course of preparation.

I am now busy in Boston looking over German Scientific Papers with a Translator. I find myself beginning to become familiar with the German Technical words so that I can make much more of such papers alone than I could before.

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I have already collected a list of more than 1500 papers upon the subjects of Sound, Electricity, and Sound Produced by Electricity and I should think I have read or glanced over about 500 of them. I keep my references in the shape of a Card Catalogue. When this suit is ended — I intend arranging all references bearing upon Telephony in chronological order so as to prepare myself for the task of writing a truthful history of the growth of the Electric Telephone. I will try to forget all I know about the subject — and pick out the references for — say — the year 1837. Read up these papers and make an abstract of them giving the condition of the art in that year.

Then retaining in my memory only these early papers — I can proceed to the references of another year — and so on. I suppose you say “Plans still Plans” — well I am afraid that a very large 4 number of my plans fall through — but I trust this will not.

I send you a notice of a Paper I have written on the subject of Vowel Theories. I have only one manuscript at present — but I expect to have a copy of it made by tomorrow or next day and will send it to you. With much love to all — not forgetting Carrie and George and Mrs. Ottaway.

Your affectionate son, Alec. Prof. A. M. Bell, Brantford, Ont.